



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

C45-13-5
Job Sheet 192163



Part No: C45-13-5

Job Qty: 100 pcs **APR 15 2019**

DAS
13
9-89

Part Name: Keeper Spring



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 3/18/19

Job Tracking No:

Due Date: 4/26/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG C45-13-5 Rev. 2 IPP Rev. A 18.09.19 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	100 pcs	4/26/19	4/26/19	0.00	0.00	Purchasing - 1	15	DP APR 15 2019
							Purchasing - 2	15	
							Purchasing - 3	15	
110	Packaging 2-1 - Receive - B4B	100 pcs	4/26/19	4/26/19	0.00	0.00	Packaging 2 - 1 - B4B		
							Packaging 2 - 2 - B4B		
							Packaging 2 - 3 - B4B		
							Packaging 2 - 5 - B4B		
							Packaging 2 - 4 - B4B		
							Packaging 2 - 6 - B4B		
							Packaging 2 - 7 - B4B		
							Packaging 2 - 8 - B4B		
							Packaging 2 - 9 - B4B		
							Packaging 2 - 10 - B4B		
							Packaging 2 - 11 - B4B		
							Packaging 2 - 12 - B4B		
							Packaging 2 - 13 - B4B		
							Packaging 2 - 14 - B4B		
							Packaging 2 - 15 - B4B		
							Packaging 2 - 16 - B4B		
							Packaging 2 - 17 - B4B		
							Packaging 2 - 18 - B4B		
							Packaging 2 - 19 - B4B		
							Packaging 2 - 20 -		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S172439



Part: C45-13-5

Job No: 192163

Serial No/Batch: S172439

Revision: 2

Inspector:

Exp Date:

Instructions:

Date: 04/15/19

						B4B	
						Packaging 2 - 21 - B4B	
						Packaging 2 - 22 - B4B	
						Packaging 2 - 23 - B4B	
						Packaging 2 - 24 - B4B	
						Packaging 2 - 25 - B4B	
						Packaging 2 - 26 - B4B	
						Packaging 2 - 27 - B4B	
						Packaging 2 - 28 - B4B	
						Packaging 2 - 29 - B4B	
						Packaging 2 - 30 - B4B	
						Packaging 2 - 31 - B4B	
						Packaging 2 - 32 - B4B	
						Packaging 2 - 33 - B4B	
						Packaging 2 - 34 - B4B	
						Packaging 2 - 35 - B4B	
						Packaging 2 - 36 - B4B	
						QC 6 - 42	
						QC 6 - 9	DAS
						QC 6 - 68	APR 17 2019 9-89
						QC 6 - 61	9-89
120 QC 6	100 pcs	4/26/19	0.00	0.00		Packaging 3 - 1 - B4B	
						Packaging 3 - 2 - B4B	
						Packaging 3 - 3 - B4B	
						Packaging 3 - 4 - B4B	
						Packaging 3 - 5 - B4B	DAS
						Packaging 3 - 6 - B4B	28
						Packaging 3 - 7 - B4B	9-89
						Packaging 3 - 8 - B4B	
						Packaging 3 - 9 - B4B	
						Packaging 3 - 10 - B4B	
						Packaging 3 - 11 - B4B	
						Packaging 3 - 12 - B4B	
						Packaging 3 - 13 - B4B	
						Packaging 3 - 14 - B4B	
						Packaging 3 - 15 - B4B	
						Packaging 3 - 16 - B4B	
						Packaging 3 - 17 - B4B	
						Packaging 3 - 18 - B4B	

				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
140 QC 21 - FG	100 pcs	4/26/19	0.00 0.00	QC 21 - FG - 21	DAS
				QC 21 - FG - 70	APR 18 2019 70
				QC 21 - SA - 53	9-89

Part Op 100 - (Purchasing)

Descriptions: 110 - (Receive & Inspect for Damage & Mat'l Certs)

120 - (QC6- All purchased or subcontracted products) Dimensional check. Ensure springs are bent as per DWG.

130 - (Identify as per dwg & Stock Location: _____)

140 - (QC21- Final Inspection - Work Order Release)

PO Details

Dendoff Springs LTD. (den002-vc)



PO No: PO042931

Line No: 1

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
C45-13-5P	Keeper Spring	100 pcs (1 ea) 101 pcs	100-Purchasing	5172437

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	C45-13-5P	100	8	0

Part Specifications

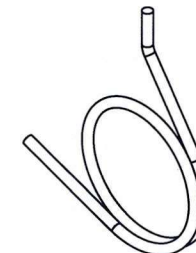
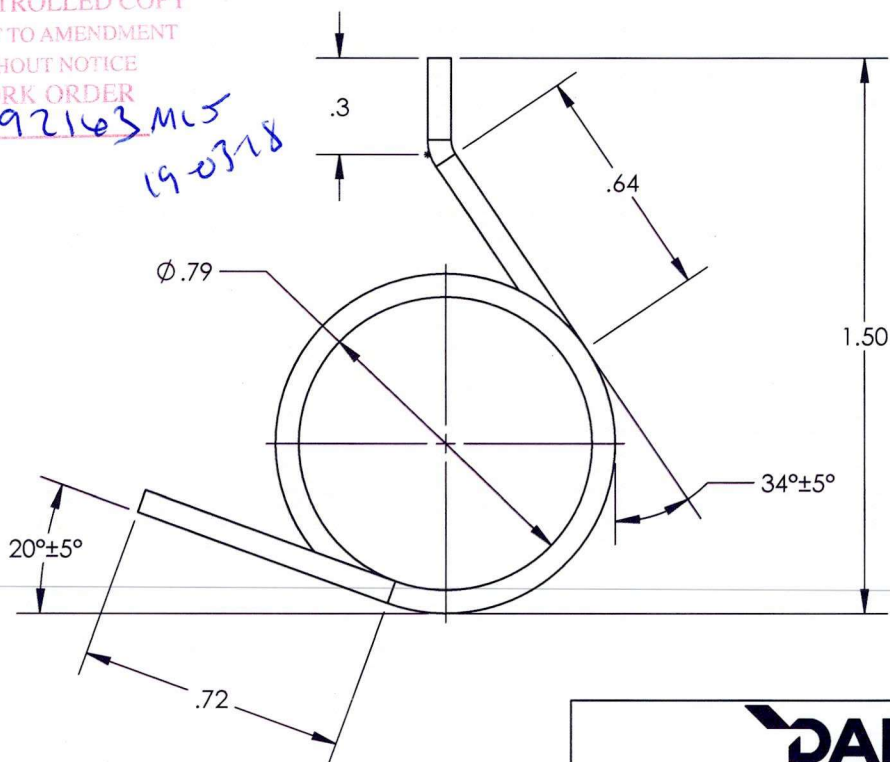
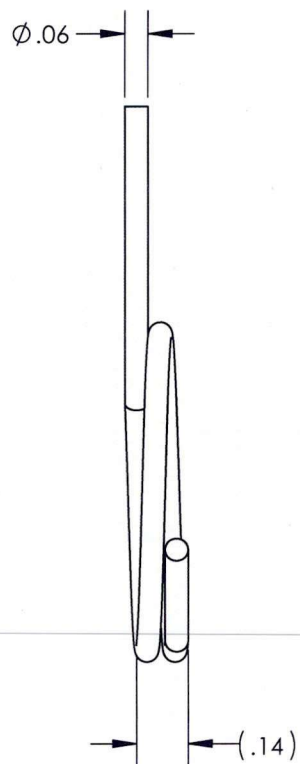
Specifications could not be found.

Plex 3/20/19 10:45 AM dart.lavoie.chantal

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		AS DRAWN BY CANAM.	9/17/2012	RJC	
2	17-0126	REVERSED SPIRAL TO MATCH AS BUILT PARTS. CH'D DIMS WAS (.063) IS $\varnothing .06$, WAS .14 IS (.14), WAS $\varnothing .601$ IS $\varnothing .793$, WAS 28° IS 34° , WAS 1.382 IS 1.50. CH'D TOLERANCES WAS $\pm .005$ IS $\pm .010$, WAS $\pm .01$ IS $\pm .03$. CH'D B/O REF WAS CHAMBERLAIN SPRING IS DENDOFF SPRINGS.	5/23/2017	DPD	JAG

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 192163 M15
19-0318



DART AEROSPACE	
TITLE KEEPER SPRING	
DWG NO. C45-13-5	REV 2
MAT'L 303 S.S.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT	.XXX $\pm .010$ FRACTIONS $\pm 1/8$
FINISH	.XX $\pm .03$ ANGLES $\pm 1^\circ$
SPEC	.X $\pm .1$ SURFACES = 125 ☒
DRAWN BY: CANAM	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: RJC 05/24/2017	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: AA 05/24/2017	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: JL 05/24/2017	USED ON MODEL
APPROVED: JAG 05/24/2017	
SCALE 2:1	DATE 5/15/1997
SHEET 1 OF 1	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS
		B/O	C45-13-5	1	KEEPER SPRING	303 S.S.	DENDOFF SPRINGS

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor		
			QC / QA Coordinator		
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



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Canada

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PURCHASE ORDER PO042931



Supplier: DEN002-VC
Dendoff Springs LTD.
12045 Old Yale Road
Surrey
BC
V3V 3X4
Phone: 604 580 3400
Fax: 604 580 3600

PO No: PO042931
PO Date: 3/20/19
Due Date: 4/22/19
Purchase Order Revision:
Revision Date:
Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Fedex Economy
Pymt Terms: Net 30
Freight Terms: Collect
Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	192163	C45-13-5P		Keeper Spring AS PER DWG DC45-13-5 REV. 2	Firmed - 101X		4/22/19 APR 15 2019	100 pcs	0 pcs	100 pcs	\$3.75/pcs	\$375.00

Line Item Note TORSION TO DRAWING
0.059" T302
0.79" ID +/- .022"
0..908" OD
1.3 NT REF. - LHW
ARM ORIENTATION TO DWG. +/- 5 DEGREE
ARM LENGTH TOL. +/- .032"
PLAIN FINISH

Grand Total: \$375.00



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Canada

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PURCHASE ORDER

PO042931



Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Procurement Quality Clauses

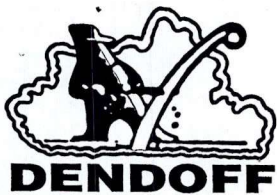
A005 RIGHT OF ENTRY
A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
A012 CHEMICAL AND PHYSICAL TEST REPORTS
A016 PERSONNEL QUALIFICATION
A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A041 QUALITY MANAGEMENT SYSTEM
A042 DART NOTIFICATION BY SUPPLIER
A043 RETENTION OF QUALITY DOCUMENT

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

CL

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DENDOFF SPRINGS LTD.
12045 OLD YALE ROAD
SURREY, BC V3V 3X4
Canada

Ph: 604-580-3400

Fax: 604-580-3600

Pack List

Number: 53670

Date: 02-Apr-19

To

DART AEROSPACE LTD
1270 Aberdeen St
Hawkesbury,, ON K6A 1K7
Canada

Ship To

Chantal Lavoie
DART AEROSPACE LTD
1270 Aberdeen St
Hawkesbury,, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-4443

Ph: 613-632-5200

Fax: 613-632-4443

Terms	Ship Via
Net 30 days	Fed Ex

Quantity	Description
101 ea	Part: DART-003 C45-13-5 Job: 74802 Rev: PO: PO042931 Line: MATERIAL P.O. # 17945 MATERIAL: STAINLESS T302 .059" HEAT # knax01107 Signature <u>B. Hilland</u> DQR-057 Rev. 0 May 2003



Wire & Steel Company
of Canada, Ltd.

250 CHRYSLER DRIVE, UNIT #1, BRAMPTON, ONTARIO L6S 6B6
TEL: (905) 791-6811 / 1-800-387-2441 - FAX: (905) 791-9588
SLITTING, OSCILLATING, EDGING AND CUSTOM PROCESSING
INDUSTRY'S CHOICE FOR QUALITY

Customer PO#: 17945

Page: 1 Of 1

Date Ordered: 09-Apr-2018

Sales Rep: Jonathan

Customer #: 13485

Description: T302 Soap Coat Stainless Wire Spring .0590

Size: .059" x Coil

Edge:

Qty Ordered: 25.00

Specification: ASTM A 313-17

Gibbs Product Code: 811-18-0590-01

Size Tolerance:

Customer Part #:

Material Certification

Qty Shipped: 26.00

Coils: 1

Heat #: knax01107

C: 0.740

Mn: 1.1100

P: 0.0300

S: 0.0010

Si: 0.3100

Cu: 0.3400

Ni: 0.0200

Cr: 0.18060

Mo: 0.02750

V:

Sn:

Ti:

Al:

Be:

N: 0.0610

Tensile: 277,800 / 277,800

Yield: N.A. / N.A.

Elong.: N.A. / N.A.

Hardness : N.A. / N.A.

Grain: N.A. / N.A.

Cond. Ch900 : N.A. / N.A.

Comments:

Melt - USA

DFARS & ROHS Compliant

Koswire

Paul Scott

Quality Department

Based on our Supplier's analysis

The order will be billed at the price prevailing at the time of shipment

Q405, Rev. No. 001/07 BR 03/06/07

Packing List #: 130763

Sch'd to Ship: Apr 11 2018

Ship To: Dendoff Springs Ltd
12045 Old Yale Road
Surrey

British Columbia, V3V 3X4

Ship Via: Western Canada Exp

F.O.B.: Brampton

Terms: Collect

Sold To: Dendoff Springs Ltd
12045 Old Yale Road
Surrey, British Columbia
V3V 3X4

Quantity Shipped (lbs): 26.00

Gross Weight (lbs): 0.00

Packaging Description: 129732

Shipper: Gibbs Wire & Steel

Per: _____

Date: _____

Agent: _____

Per: _____

Date: _____

All claims for shortages must be made with 10 days.
Goods may NOT be returned without a
Gibbs authorization number.